

(12) **United States Patent**
Blyskal et al.

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(54) **FRAGMENTATION WARHEAD WITH FLEXIBLE LINER**

USPC 102/306–310, 475, 476, 506, 389
See application file for complete search history.

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Related U.S. Application Data

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(57) **ABSTRACT**

(51) **Int. Cl.**

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A fragmentation warhead with a flexible liner enables increased control of the warhead's fragmentation pattern. The flexible liner is fixed to a rigid portion of the warhead housing. Explosive material is contained in the housing. A fluid is disposed between the explosive material and the flexible liner to function as a shock transition material. The fluid is contiguous with and bears on an inner surface of the flexible liner. A plurality of rigid fragments or a plurality of explosively formed projectile (EFP) liners are fixed to an outer surface of the flexible liner opposite the fluid. Initiation of the explosive material propels the fragments or EFP liners in directions that may be varied by varying the shape of the flexible liner.

(52) **U.S. Cl.**

CPC **F42B 12/22** (2013.01); **F42B 12/72** (2013.01)

(58) **Field of Classification Search**

CPC F42B 12/22; F42B 12/72

23 Claims, 10 Drawing Sheets

